whom no mention is made—as due to a system of naming.

A third of the book is taken up with the exposition of the solar god in mythology, and the author certainly gives examples of solar and other myths from different peoples, but he presses into this argument various folk-tales which do not seem to have any solar significance. It is true that certain incidents in some of these tales may be paralleled by incidents in folk-tales in other parts of the world which are recognisable as solar myths, for, to take one example, a fishing population is very likely to have in one of its tales the incident of a man being swallowed by a fish; and wherever this occurs the solar mythologists pick out this incident and regard it as a part of the "Jonah-solar myth," although the rest of the tale may have no bearing at all on solar mythology. This incident occurs in folk-tales from various places, and in the Torres Straits tale of Mutuk it is recorded that the hair of that individual fell off when he was in the shark's stomach. The same incident occurs in the North American tale, when Kaig, the Mink, was swallowed by a whale, the loss of hair in this case being due to the heat; in the tale as here given it is not evident that "the cause of the hair falling off is the heat of the sun" (p. 287). The same explanation is offered for the Mutuk incident; by such methods correspondences are readily arrived at, but this is not the place to discuss the modern recrudescence of astral-mythology in Germany.

The bird in symbolic art, according to Dr. Frobenius, bears the soul aloft through the air up to the sun. "But here is the solution of the whole problem; the soul of the dead man follows the sun." He considers that the tales of the cunning spider are survivals of mythological tales in which the spider is regarded as representing the sun. "In the form of rays the sun emits its sea of light; in the form of rays the spider, too, weaves its web. Thus the slender threads of the spider become solar rays and the sun becomes the spider which in artful ways ensnares the souls of mortals. The solar myth, however, became a nursery tale." There are two chapters on the origin of the world, the fall of the sky, the flood, and the theft of fire.

It will be seen that the book covers a broad field and contains much interesting matter, some of which is not easily accessible to the English-reading public; and, indeed, there seem to be some accounts not previously published, but the absence of references renders it difficult to be quite certain on these points, and is, indeed, a very serious blemish in the book. There is a large number of excellent figures and plates, but a great many of these are not explained, and appear to have no bearing on the text. Finally, the book is rather an exposition of the author's views than of those generally held by ethnologists.

A. C. HADDON.

FIG. 2.—The Juju Nkali Feast. From "The Childhood of Man."

ALBERT GAUDRY.

BIOLOGICAL and geological science mourns the loss of Prof. Albert Gaudry, who, full of years and honours, passed away at Paris on November 29. He was one of the most distinguished pioneers in the modern methods of studying extinct animals, and during the past half-century his brilliant expositions and suggestive writings have been among the most potent influences for the direction of palæontological research to profitable ends. In the case of his pupils and those who had the privilege of his personal acquaintance, the charm of his courtly manner and quiet enthusiasm strengthened these influences, and made him a revered master.

Jean Albert Gaudry was born at Saint-Germain-en-Laye on September 15, 1827, the son of a well-known

lawyer. He studied at Paris, where he eventually graduated as Doctor of Sciences. His earliest researches were mainly geological, relating to such subjects as the dolomitisation of limestone and the origin of flint; but in 1851 he wrote about the skeleton of some star-fishes, and his attainments were so varied that he attracted the notice of the French Minister of Agriculture and Commerce, who sent him in 1853 on a scientific mission to Syria, Egypt, Greece, and the Ionian Islands. Gaudry's official report appeared as a publication of the French Government in 1855, dealing with the geology, natural products, industries, and possible commercial development of the several countries visited; but his observations on the geology of Cyprus were so exhaustive that he reserved most of the details for a special memoir, which was issued seven years later by the Geological Society of France. When Cyprus became a British possession in 1878, Gaudry's important work was translated into English and re-published by the Intelligence Department of the War Office.

While travelling in Greece, Gaudry's attention was directed to a remarkable accumulation of fossil bones at Pikermi, between Athens and Marathon, which had been discovered and partially examined by the Bavarians. Collections of the bones had been sent to Munich, and described by Roth and Wagner in the *Abhandlungen* of the Bavarian Academy; but Gaudry realised that more exhaustive exploration would yield important results, and he induced the French Academy to provide him with means for the work in the season 1855-6. He made a large collection, which was sent to Paris and occupied his attention for the next four years; in 1860 he returned to Pikermi to obtain additional specimens that seemed to be required; and between the years 1862-7 he published his classic monograph, "Animaux fossiles et Géologie de l'Attique." This work dealt chiefly with the Upper Miocene (or Lower Pliocene) Mammalia, and was the first systematic attempt to arrange extinct animals of successive geological periods in linear series below their surviving representatives, to illustrate the probable direction of evolution of the several groups. Gaudry showed clearly that the mammals of Pikermi were links between those of earlier date and those of the present day; and he initiated a plan of detailed comparison, especially of the teeth and feet, which has been followed with great success during later years by those who have investigated the numerous extinct mammalian faunas of North America. He recognised that much additional information on the same subject could be obtained by comparing the Upper Miocene (or Lower Pliocene) mammalian skeletons from France itself with those of earlier geological periods already known from that country. In 1866 he accordingly made explorations at Mont Léberon, in Vaucluse, and seven years afterwards his earlier volumes were supplemented by that on the "Animaux fossiles du Mont Léberon."

Meantime Gaudry had joined the staff of the Paris Museum of Natural History, first as assistant (1853) and subsequently as professor of palæontology (1872). Here he came into contact with many workers, and took part in several other researches while his own special studies were in progress. He was particularly interested in Boucher de Perthes's discovery of flint implements with the bones of extinct Pleistocene mammals in the river-gravels of Abbeville; and when Prestwich and others confirmed this discovery in a communication to the Royal Society in 1859, Gaudry added his testimony in a paper read before the French Academy at the same time. The problems connected with early man continued to interest him to the end, and so recently as 1903 he wrote for *L'Anthropologie* an essay on the dentition and lower jaw of human skeletons from the Mentone caves, demonstrating their very primitive characters.

Gaudry's researches on the fossil mammals of Pikermi and Mont Léberon naturally led him to apply his methods of study to other groups; and he planned a great work which should sketch at least the broad outlines of the evolution of life as revealed by palæontology. It was entitled "Les Enchaînements du Monde animal dans les Temps géologiques," and appeared in three volumes between 1878 and 1890, with a supplementary volume, "Essai de Paléontologie philosophique," in 1896. This work is unique as a readable exposition of the science of palæontology, and its beautiful wood-cut illustrations of fossils have never been surpassed. While it was in course of preparation a continual series of original papers recorded the more technical results of the author's researches.

For fifty years Gaudry devoted unbounded energy to the perfection and arrangement of the collection of fossils at the Paris Museum, and when he retired in 1903 his colleagues and friends of every nationality subscribed towards a suitable tribute of admiration. A medal was struck in honour of the occasion. His withdrawal from official duties, however, did not affect his original researches, and until the beginning of his last illness in the summer of this year he was regularly occupied with the study of the remarkable extinct mammals of South America. He arrived independently at the conclusion, which is now very generally adopted, that the mammals of the southern continent evolved separately from those of the northern hemisphere, and remained in a comparatively backward condition.

The whole of Gaudry's published work is characterised by an almost poetic mode of expression; and while detailed descriptions of the fossils are rarely omitted, they are often dispersed among his illuminating comparisons in such a manner that his writings have sometimes been criticised as unsystematic or superficial. Gaudry's extensive travels, however, had made him acquainted to an unusual degree with the fossils of every land, and he realised the limitations of his science too thoroughly to make the dogmatic assertions concerning genealogies and relationships which are not infrequent in the works of some of his followers. In the existing state of knowledge, he was satisfied with broad outlines which could be used for guidance in future more detailed research.

Gaudry became a member of the Institute of France in 1882, and a foreign member of the Royal Society in 1895. Among foreign honours there was none he appreciated more highly than that of the Wollaston medal, awarded to him by the Geological Society of London in 1884. An excellent portrait of him appears in the *Geological Magazine* for February, 1903.

A. S. W.

NOTES.

DR. F. WALKER MOTT, F.R.S., has been elected Fullerian professor of physiology in the Royal Institution.

THE next meeting of the Australasian Association for the Advancement of Science is to be held in Brisbane in January, 1909.

THE annual meeting of the British Science Guild will be held on Friday, January 22, at the Mansion House, by permission of the Lord Mayor. Mr. Haldane, president of the Guild, will be one of the speakers.

IT is announced from Stockholm that the Nobel prize for physics has been awarded to Prof. G. Lippmann, and not to Prof. Planck, as was stated last week. Prof. Lippmann left Paris for Stockholm on December 4.